ESTABLISHING A RURAL REGIONAL COHORT: SUPPORTING FIDELITY OF PBIS IMPLEMENTATION IN RURAL SCHOOLS

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Purpose
This demonstration features the collaborative work of a state-funded project matching university-based PBIS trainers with school level implementers in a rural setting. Strategies and lessons learned when implementing PBIS with fidelity during challenging times is shared. The information learned from this regional example highlights the need for considering adaptations to support the culture and context of rural settings while maintaining robust levels of fidelity and sustaining momentum for continued implementation.
Background

According to the National Center for Education Statistics (NCES, 2021) approximately 19% of youth attend rural schools, with many of these schools having both strengths and challenges. The strengths of rural communities and their schools are well-established and include smaller school settings; personalized student attention; strong sense of community, tradition, identity, and engagement; and for educators, an opportunity to make a meaningful difference in the lives of children and their families (Azano et al., 2021). The challenges of bringing educational innovations to rural communities and schools are also well documented and include accessing professional development support, recruiting and retaining highly qualified teachers, lower pay scales, high poverty rates, limited healthcare and vital community resources, eroding tax bases, and state and federal budget cuts (Biddle & Azano, 2016; Petrin et al., 2014; Rude & Miller, 2018; Strange et al., 2012). While the challenges to implementing large-scale innovations in rural school settings can be substantial, understanding and honoring the values and traditions of rural communities and incorporating their unique strengths provides a solid foundation for building capacity that is culturally relevant and durable (Biddle & Azano, 2016).

One way to do this is by using a Positive Behavioral Interventions and Supports (PBIS) framework. PBIS is a prevention-oriented approach designed to make efficient and effective use of limited resources while being responsive to local culture by encouraging family and community input and participation. Based on a multi-tiered prevention approach, PBIS incorporates integrated systems, evidence-based practices, and procedures for data-based decision-making which results in a coherent framework of social, emotional, and behavioral support. As an evidence-based framework, PBIS has been associated with improved school climate, reduced exclusionary discipline, increased opportunities for positive interactions and relationships between school staff and students, and creating learning environments that enhance social development and support academic growth (Bradshaw et al., 2009, 2010; Gage et al., 2018; Horner et al., 2009, 2010; Waasdorp et al., 2012).

Fidelity of implementation remains a hallmark of success for PBIS schools and often leads to the best outcomes. For example, schools implementing the PBIS framework with fidelity have shown improved student outcomes (e.g., Bradshaw et al., 2015), such as decreases in disciplinary events (e.g., office discipline referrals: Bradshaw et al., 2010; suspensions: Gage et al., 2018). While fidelity assumes implemented as
intended, the degree of using adaptations or flexibility with implementation may vary across environments. Specifically, the PBIS framework has been used in rural schools and has led to improved outcomes, such as reductions in suspensions (e.g., Doggett et al., 2008; Johnson-Gros et al., 2008; Leedy et al., 2004; McDaniel et al., 2018; Ruiz et al., 2012), yet the challenges for implementation still exist in these settings. The Maine Regional Professional Development Cohort demonstrates that a state-funded project matching university-based PBIS trainers with school level implementers can support PBIS implementation with fidelity while still adapting to the rural context and challenging situations during the pandemic.

The Rural Context in Maine

Maine is a mostly rural and sparsely populated state, with school districts often spread across large geographical areas with considerable distances between neighboring districts. Covering 30,843 acres, 545,287 of Maine’s 1,362,359 inhabitants (40%) reside in rural areas. Maine is one of only two states in which over half (51.6%) of all students attend schools located in rural districts (Vermont is the other state; Showalter et al., 2019).

The Regional Professional Development Cohort Established

Prior to the Maine Department of Education offering a “Fund for Efficient Delivery of Educational Services” grant, PBIS training and coaching capacity was limited. Training occurred at either an individual school or district level. This proved difficult because of the vast geographical distances from one school to another, limited trainer and coaching capacity, and significantly stretched school budgets. Yet, more and more schools sought training in PBIS as an avenue to achieve positive outcomes for students, staff, and communities. To meet the growing interest despite the limited resources, the University of Maine was funded by the state Department of Education to bring 15 schools together for a 3-year regional professional development cohort.

Project Goals and Expectations

The regional professional cohort started by setting up goals and expectations between university-based trainers and school/district leaders focusing on:

- building internal school and district capacity for school-wide PBIS implementation;
- developing a regional PBIS implementation support network; and
- ensuring implementation efforts sustained beyond the project.

University-based trainers and the school/district leaders also established clear and transparent agreements to:

- committing to and ensure PBIS implementation remained a priority for the next 5 years;
- providing observable administrator support, including attendance at trainings and meetings;
- protecting time for PBIS during professional development opportunities, staff meetings, and committee work; and
- supplementing grant-funded with school-funded investment, including costs for substitutes, state conference registration for leadership team members, and the School-wide Information System (SWIS) for measuring student discipline data in Year 3.
Regional Cohort Demographics

Participating schools, spanned a geographical area encompassing 5,000 square miles. However, because the cohort matched the diversity of rural communities in Maine, there were substantial differences in key characteristics. For example, one regional school had 1,000 students whereas another community-based school had only 60 students. See Table 1 for a summary of the regional cohort demographics.

Like schools in many rural locales, schools within the cohort ranged from being part of a larger school district to operating as independent schools. As a result, participating schools experienced various levels of commitment and capacity for decision-making leading to the need for flexibility with PBIS implementation. Examples included:

- Early release days, to promote training and implementation efforts
- Flexibility with school calendars, initiative alignment, and resource allocation
  - Example: One school consolidated funds and coordinated its scheduled professional development days to coordinate with the Maine State PBIS Conference so the entire school staff could attend rather than just the PBIS leadership team.

Table 1. Summary of Regional Cohort Demographics

<table>
<thead>
<tr>
<th>School Data</th>
<th>Student Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 rural, 2 suburban, 1 urban (NCES, 2021)</td>
<td>Population within each school ranged from 60-1,000.</td>
</tr>
<tr>
<td>8 elementary, 4 elementary/middle, 1 middle, 1 middle/high, 1 Pre-K–12</td>
<td>38-79% of students in each school are considered economically disadvantaged.</td>
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<tr>
<td></td>
<td>Individuals classified as White represented the largest racial subgroup in each school ranging from 31-98%. Other represented racial subgroups included American Indian/Alaskan Native, Hispanic, Black, Asian, and 2 or more races.</td>
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Rural Definitions

This database uses the NCES Locale Classifications and Criteria to define rural locations. For the purposes of this evaluation brief, all rural categories were collapsed into one “rural” category. The rural definitions are:

- **Rural – Fringe (41):** Census-defined rural territory that is less than or equal to 5 miles from an Urbanized Area, as well as rural territory that is less than or equal to 2.5 miles from an Urban Cluster.
- **Rural – Distant (42):** Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an Urbanized Area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an Urban Cluster.
- **Rural – Remote (43):** Census-defined rural territory that is more than 25 miles from an Urbanized Area and also more than 10 miles from an Urban Cluster. (NCES, 2022).
Building Capacity

Obtaining Buy-In and Gathering Initial Data
Prior to the training, university-based trainers held school-wide staff meetings at individual schools to provide an introduction to PBIS, share the agreements with school PBIS coaches, team members, and staff, and gather baseline fidelity and climate data. These meetings helped to promote buy-in and strengthen long-term commitment to developing a PBIS framework in each school. Additionally, a cohort-wide training was held with district-level administrators focused on their role, the expectations of the project, and how they could provide critical implementation support.

PBIS Tier 1 Training
The project used the Northeast PBIS training model as a framework to plan for a gradual release of responsibility from university-based trainers to school teams to build their capacity for Tier 1 implementation.

In order to carry out the role release, all schools received external university-based coaching and technical assistance support that was reduced as school teams progressed through the 3-year plan. For example, during Year 1, schools participated in more training days, paired with specialized coaching meetings, than in subsequent years. To foster the cohort’s connection to the broader state-wide network, school teams were also expected to attend the state PBIS conference.

Adapting to the Pandemic
In March, 2020 during Year 2, the COVID-19 pandemic unexpectedly altered the project. Not only were in-person events no longer feasible, the pandemic exacerbated the already strained capacity of schools to find substitute coverage for training events. As a result, coaching meetings and team trainings were moved from full-day in-person formats to virtual, monthly, shortened sessions held at the end of the school day. Further, adaptations were needed in the types of data to progress monitor during this unique time. For example, collecting virtual data on student discipline incidents became secondary to promoting student and family engagement. To sustain stakeholder involvement, flexibility in delivering and providing supports for maintaining Tier 1 implementation was essential and the focus on outcomes shifted toward fidelity of implementation.

Measures
Fidelity of implementation relates to whether an intervention or practice is carried out as intended. Routine monitoring of fidelity of the core features of PBIS (e.g., developing and teaching schoolwide expectations, encouraging and acknowledging contextually appropriate behavior, preventing and responding instructionally to contextually inappropriate behavior, team-based implementation, data-based decision-making) guides action planning and ensures the likelihood of achieving desired outcomes. Researchers have shown that fidelity of implementation can help PBIS schools achieve better
student outcomes (e.g., Bradshaw et al., 2015; Gage et al., 2018). With this cohort, the schools collected fidelity data throughout the 3-year project using multiple sources of data.

**Implementation Measures**

**Team Implementation Checklist (TIC).** School teams completed this fidelity measure two to three times per year to progress monitor their implementation efforts and support their action planning throughout the 3-year project.

**Tiered Fidelity Inventory (TFI).** Prior to the start of the 3-year training and then each following spring, school teams with support from their university-based trainer completed the TFI annually to measure fidelity of implementation.

**Self-Assessment Survey (SAS).** All school staff were asked to complete the SAS annually to identify elements of school-wide, non-classroom, classroom and individual behavioral support features as completely in place, partially in place or not in place. They were also asked to rate those same features as a high, medium or low priority for improvement.

**Participant Satisfaction**

**Training Evaluation Surveys.** Participant surveys were provided at the end of each training and used to shape future training events. Additionally, at the end of each project year, school implementers were asked to provide feedback on the training and coaching support received throughout the year. These surveys included participant perceptions of how participation in the regional professional development cohort was impacting their school.

**Implementation Outcomes**

**Fidelity**

The schools showed increases in the TIC. That is, they self-reported that they were more fully implementing components of the PBIS framework across time (see Figure 1).

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**Figure 1. Cohort-based TIC Score Averages**

![Cohort Team Implementation Checklist (TIC) Scores](image)

- % of Implementation Items Achieved
As a cohort, average Tier 1 TFI scores showed increases that were sustained across the three years of the project (see Figure 2).

**Figure 2. Cohort-based TFI Score Averages**

![Bar graph showing cohort-based TFI score averages across years]

By the end of Year 2, 12 out of the 15 schools reached criterion for Tier 1 implementation fidelity (70% on the TFI). Those same schools sustained fidelity through Year 3. Of the remaining schools, 2 schools reached 67% at the end of Year 3. One school discontinued halfway through Year 2.

**Staff Perceptions**

Staff perceptions of implementation, gathered through the SAS, generally indicated that as a school’s PBIS framework strengthened, the rate of completely in-place features increased and the rate of high priority for improvement decreased. This was seen in averages across the cohort as well as within individual schools (see Figure 3).

**Implementer Satisfaction**

Implementer feedback on the effectiveness and impact of the training and coaching received, indicated most implementers found the regional professional development cohort to be an effective avenue for improving PBIS implementation and student outcomes. Also, agreement was reported regarding alignment with

**Figure 3. Staff Perceptions of Tier 1 Implementation In-place and Priority for Improvement**

![Bar graph showing staff perceptions of Tier 1 implementation in-place and priority for improvement across years]
other school initiatives; whereas, less agreement was reported regarding district-level capacity building and initiative alignment (see Figure 4).

**Lessons Learned**

Across the state of Maine, the rural schools in this cohort were able to work with university-based trainers to adapt PBIS to fit the context of their settings and to adjust to a school crisis (e.g., COVID-19). This included using PBIS to bolster their strengths while adapting to the culture of the setting and the reality of a pandemic. The schools demonstrated successful implementation across time and showed increased levels of fidelity.

The following are some lessons learned during this process.

**Establish Clear and Transparent Expectations**

Establishing clear and transparent expectations is a core feature of promoting predictable learning environments for all students and staff. The cohort’s agreements and clear expectations for the districts, schools, and staff prevented competing initiatives from draining valuable resources allocated to PBIS implementation. School coaches and teams protected their professional development time by leveraging the expectations anchored to these agreements.

**Establish and Support Professional Networks**

Maine’s many rural and outlying communities often experience a scarcity of school-to-school networking and opportunities to share ideas. Within a few months of beginning the cohort, implementers showed a strong desire to spend more time in the training days working with other schools. Participant comments on training evaluation surveys indicated that the cohort approach helped them share innovative and creative ways to approach implementation in settings with similar barriers, such as limited resources. Additionally,

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**Figure 4. End-of-Project Participant Feedback on Training and Coaching Support**

![Figure 4](chart.png)
during each training event, school teams were asked to share products, insight, or implementation examples. This fostered an environment of networking with other schools.

Examples of participant feedback included:

“[It is great] having opportunities to see how other similar schools are implementing different aspects of PBIS and how they are working in those environments. It is also helpful to see where different schools are at in the process.”

“I really appreciate being able to see and hear what other schools/districts are doing and how they are solving problems.”

“It helps us to understand that we are not alone in the challenges that we face.”

“Gaining knowledge and hearing how it has worked for other schools has given us the drive to dig in and try it, to be brave.”

The university-based trainers also developed peer-to-peer communication systems for the implementers through social media accounts and through school emails to help maintain these valuable connections established within the cohort. Since the project ended, the schools have been able to sustain a coaches’ network, with activities planned into the next school year.

Provide Frequent Communication

University-based trainers frequently communicated with cohort implementers through a monthly newsletter to (a) acknowledge schools’ implementation efforts and successes, (b) provide reminders of upcoming events and activities, and (c) disseminate resources and information. Routine communication provided a cadence for the work. School implementers relied on the valuable resources to communicate celebrations and achievements, and reminders for upcoming tasks. The reliable communication supported implementers’ ability to stay current with assessment and survey timelines and other implementation activities.

Provide Explicit Skill-Based Training

Implementation activities were embedded with professional development training days and on-site university-based training supports with the skill building logic of “I Do, We Do, You Do.” In Year 1, teams completed implementation activities with significant trainer guidance and strategic support. Throughout Year 2, teams and school-based coaches began to take on greater responsibility including training and supporting their staff. By Year 3, school-based coaches and teams led their implementation efforts and only relied on external coaches and trainers for feedback and problem solving (see Table 2).
Maintain a Gradual Release of Responsibility

Looking from a systems approach, the levels of support needed by the schools was exemplified using the multi-tiered system of support (MTSS) logic by providing support based on the needs of the school:

- **Most** participating schools maintained high levels of implementation with the universal gradual release of responsibility model
- **Some** schools needed additional supports, prompts, and technical assistance to maintain activities associated with high implementation
- **Few** schools may require ongoing professional development and coaching to reach Tier 1 implementation of PBIS

Allowing this layered support enabled schools to take over implementation internally while still meeting their needs.

**Key Takeaways**

In summary, the core features of PBIS were applied through the training and technical assistance provided to the Maine Regional Professional Development Cohort. Clear and transparent expectations, consistent routines, and explicit teaching of skills promoted a positive, predictable learning environment for the participating school teams. These practices, paired with feedback and frequent communication from university-based trainers were integral to the success of Maine’s pilot of a regional professional development cohort that adapted PBIS to fit both the culture and context of rural settings during a global pandemic.

The success of this cohort in implementing PBIS with fidelity was enhanced by the community building and peer networking opportunities that arose among cohort participants. The original goal of overcoming limited access to professional development and using resources efficiently provided an unexpected benefit. Cohort participants, who often experienced limited opportunities to interact with colleagues beyond their own school, were able to learn from, collaborate with, and support their peers in implementing the PBIS framework in their schools. Maintaining momentum for implementation can often be challenging and was

<table>
<thead>
<tr>
<th>Year</th>
<th>Skill Building Logic</th>
<th>Activities</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>I Do</td>
<td>• University-based trainer provided a report of the school’s fidelity outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• School coach and team collaborated with the external coach to identify goals for the upcoming year</td>
</tr>
<tr>
<td>Year 2</td>
<td>We Do</td>
<td>• University-based trainer provided a template for reporting fidelity outcomes and offered considerations for next steps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• School coach and team gathered their fidelity data, input the data into the template, and identified their goals for the upcoming year</td>
</tr>
<tr>
<td>Year 3</td>
<td>You Do</td>
<td>• School coach and team gathered their fidelity data, created their own report, identified goals for the upcoming year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• University-based trainer provided feedback and was available as needed</td>
</tr>
</tbody>
</table>
especially challenging throughout the COVID-19 pandemic. By using a gradual release of responsibility, the regular virtual meetings of this rural cohort provided layered supports that included prompts, inspiration, and specific needs-based guidance to keep teams moving forward.

**Conclusion**

As a result of this regional demonstration, over 4,000 Maine students in mostly rural schools are now in learning environments where PBIS is being implemented with fidelity and hopefully experiencing the positive outcomes associated with strong implementation. Since the COVID-19 pandemic interrupted the opportunity for accurate student outcome data, the success of the regional cohort focused on the strong fidelity of implementation exhibited by the schools. Additionally, the adults in those schools, the families of the students, and the communities that surround them have been able to access training and coaching support that would not have been possible without the strategic, efficient, and cost-effective collaboration that arose from this project. Future examination that includes pairing fidelity of implementation with improved student outcomes will further strengthen the lessons learned and may provide assistance to others seeking to strengthen PBIS implementation in rural areas. Using a regional cohort with university-based trainers matched to school-based implementers allowed the support provided to fit the culture and context of the rural settings while maintaining robust levels of fidelity.
References


**Related Practice Briefs**

1. **PBIS Academy Model Demo Brief: Impact of Statewide Support Model on High-Needs Schools**

2. **Building Momentum for PBIS Implementation in High Need Districts**


4. **PBIS in Rural America: Addressing Barriers and Building on Strengths**

5. **Using a PBIS Framework: Working Smarter, Not Harder in Rural Schools**

6. **Is Tier 1 PBIS Feasible and Effective in Rural, High Poverty Secondary Schools? Initial Examination of a Model Demonstration**

7. **PBIS Implementation in Rural Schools: Voices from the Field**

8. **PBIS Implementation in Rural Schools in the U.S.**
Embedded Hyperlinks

1. https://nepbis.org/nepbis-academy
2. https://www.pbis.org/resource/pbis-team-implementation-checklist-tic-3-1

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